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(FILE 'HOME' ENTERED AT 11:45:47 ON 03 FEB 2007)

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:45:58 ON 03 FEB 2007

FILE 'REGISTRY' ENTERED AT 11:46:01 ON 03 FEB 2007

E N-ACETYLGLUCOSAMINE/CN

L1 1 S E3

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:47:18 ON 03 FEB 2007

L2 9442 S L1  
L3 232 S L2 AND MILK?  
L4 4 S L3 AND ?PASTEU?  
L5 5 S L2 AND PASTEUR?  
L6 2 S L5 NOT L4  
L7 40 S L2 AND BEVERAGE?  
L8 2 S L7 AND HEAT?  
L9 1 S L7 AND TEMPER?  
L10 38 S L7 NOT L8  
L11 0 S L10 AND MILLIGRAM?  
L12 6 S L10 AND MG  
L13 32 S L10 NOT L12  
L14 0 S L13 AND BIOMASS?  
L15 1 S L13 AND FUNG?  
L16 8 S L13 AND CHITIN?  
L17 24 S L13 NOT L16  
L18 1 S L17 AND FLOUR?  
L19 4 S L17 AND BAK?  
L20 20 S L17 NOT L19  
L21 12 S L2 AND SERVING?  
L22 0 S HEAT PASTEUR? (P) SWEETEN?  
L23 148 S PASTEUR? (P) SWEETEN?  
L24 33 S L23 AND BEVER?  
L25 0 S L24 AND FUNG?  
L26 0 S L24 AND BIOMASS?  
L27 14 S L24 AND TEMP?  
L28 16 S L2 AND STERILI?

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(FILE 'HOME' ENTERED AT 11:45:47 ON 03 FEB 2007)

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:45:58 ON 03 FEB 2007

FILE 'REGISTRY' ENTERED AT 11:46:01 ON 03 FEB 2007

E N-ACETYLGLUCOSAMINE/CN

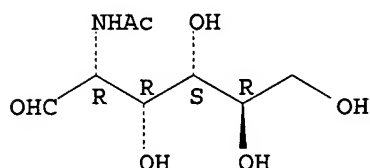
L1 1 S E3

FILE 'CAPLUS, MEDLINE' ENTERED AT 11:47:18 ON 03 FEB 2007

L2 9442 S L1  
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L12 6 S L10 AND MG  
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L15 1 S L13 AND FUNG?  
L16 8 S L13 AND CHITIN?  
L17 24 S L13 NOT L16  
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L19 4 S L17 AND BAK?  
L20 20 S L17 NOT L19  
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L22 0 S HEAT PASTEUR? (P) SWEETEN?  
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L24 33 S L23 AND BEVER?  
L25 0 S L24 AND FUNG?  
L26 0 S L24 AND BIOMASS?  
L27 14 S L24 AND TEMP?  
L28 16 S L2 AND STERILI?

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
 RN 7512-17-6 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN D-Glucose, 2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN D-Glucose, 2-acetamido-2-deoxy- (8CI)  
 OTHER NAMES:  
 CN 2-Acetamido-2-deoxy-D-glucose  
 CN 2-Acetamido-2-deoxyglucose  
 CN 2-Acetamido-D-glucose  
 CN 2-Acetylamino-2-deoxy-D-glucose  
 CN Acetylglucosamine  
 CN D-N-Acetylglucosamine  
 CN Marine Sweet  
 CN N-Acetyl-2-amino-2-deoxy-D-glucose  
 CN N-Acetyl-2-amino-2-deoxyglucose  
 CN N-Acetyl-D-glucosamine  
 CN N-Acetylglucosamine  
 CN NSC 524344  
 FS STEREOSEARCH  
 DR 7132-76-5, 134-61-2, 173382-53-1, 98632-70-3  
 MF C8 H15 N O6  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO,  
 CA, CABA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM,  
 EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS,  
 NAPRALERT, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6443 REFERENCES IN FILE CA (1907 TO DATE)  
 482 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 6459 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:230126 CAPLUS  
DOCUMENT NUMBER: 142:446265  
TITLE: Chemical indicators of heat treatment in fortified and special milks  
AUTHOR(S): Mendoza, Maite Rada; Olano, Agustin; Villamiel, Mar  
CORPORATE SOURCE: Instituto de Fermentaciones Industriales (CSIC), Madrid, 28006, Spain  
SOURCE: Journal of Agricultural and Food Chemistry (2005), 53(8), 2995-2999  
CODEN: JAFCAU; ISSN: 0021-8561  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Carbohydrate and furosine contents in 12 com. fortified and special milk samples (pasteurized goat's and ewe's milks ; ultrahigh-temperature (UHT) goat's milk, UHT milks fortified with calcium, magnesium, fiber, or royal jelly and honey; and lactose-hydrolyzed milks) were analyzed. Except for lactose-hydrolyzed milks, furosine, lactose, lactulose, galactose, glucose, N-acetylgalactosamine, N-acetylglucosamine, and myo-inositol contents were similar to the previously reported values for UHT or pasteurized milk samples. In lactose-hydrolyzed milks, lactulose was not detectable and lactose was present in low amount; high levels of glucose, galactose, fructose, tagatose, and furosine were also detected in this type of milk. Results found in com. milks were compared to those obtained in laboratory-prepared UHT milks with lactose hydrolyzed prior to heating. Hydrolysis of lactose before thermal treatments promoted elevated accumulation of reducing sugars (galactose and glucose) that could be partially converted to the corresponding isomers (tagatose and fructose) during heating. In addition, the reducing sugars could also react with the amino groups of proteins, giving rise to the corresponding Amadori compound. According to the obtained results, heating prior to hydrolysis of lactose is suggested to avoid a considerable loss of available lysine.

REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:868692 CAPLUS  
DOCUMENT NUMBER: 137:381685  
TITLE: Cloning, characterization and sequences of PmHS and PglA heparin/heparosan synthases from Pasteurella multocida and use of the heparin/heparosan synthases for the production of polymers  
INVENTOR(S): Deangelis, Paul L.  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 128 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 25  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2002089742  | A2   | 20021114 | WO 2002-US14581 | 20020508 |
| WO 2002089742  | A3   | 20031023 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, |      |          |                 |          |

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,  
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1392843 A2 20040303 EP 2002-725971 20020508

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

US 2001-289554P P 20010508  
US 2001-296386P P 20010606  
US 2001-303691P P 20010706  
US 2001-313258P P 20010817  
WO 2002-US14581 W 20020508

AB The presently claimed and disclosed invention relates, in general, to dual action heparin synthases and, more particularly, to dual action heparin synthases obtained from *Pasteurella multocida*. A dual action heparin/heparosan synthase encoded by a gene pmHS was identified in *P. multocida*. This enzyme is responsible for the polymerization of the glucuronic acid and N-acetylglucosamine. The nucleotide sequence of the *P. multocida* gene pmHS (clones A2 and B10) and the encoded amino acid sequence of the dual action heparin/heparosan synthase are disclosed. A gene with unknown function, called pglA was found in a genome sequencing project of type A *P. multocida*. It is disclosed in the present invention that the PglA enzyme is also a heparin synthase. This unexpected cryptic gene is functional in vitro in recombinant systems. The presently claimed and disclosed invention also relates to heparosan, heparin and heparin-like mols. provided by recombinant techniques and methods of using such mols. and also the identification or prediction of heparin synthases or component single action enzymes. The presently claimed and disclosed invention also relates to methods, and mols. produced according to such methods, for using the presently claimed and disclosed heparosan and/or heparin synthase for polymer grafting and the production of non-naturally occurring chimeric polymers incorporating stretches of one or more acidic GAG mols., such as heparin, chondroitin, hyaluronan, and/or heparosan.

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:312191 CAPLUS

DOCUMENT NUMBER: 135:75987

TITLE: Influence of refrigeration and carbon dioxide addition to raw milk on microbial levels, free monosaccharides and myo-inositol content of raw and pasteurized milk

AUTHOR(S): Ruas-Madiedo, Patricia; De los Reyes-Gavilan, Clara G.; Olano, Agustin; Villamiel, Mar

CORPORATE SOURCE: Instituto de Productos Lacteos de Asturias (CSIC), Villaviciosa, 33300, Spain

SOURCE: European Food Research and Technology (2000), 212(1), 44-47

CODEN: EFRTFO; ISSN: 1438-2377

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The influence of CO<sub>2</sub> treatment on free monosaccharides and myo-inositol in raw and pasteurized milk during cold storage was studied. Pasteurization did not cause significant changes in the monosaccharide fraction. No variations in the level of galactose and myo-inositol in untreated and CO<sub>2</sub>-treated samples were observed during cold storage. The content of glucose decreased considerably during cold storage due to bacterial growth in pasteurized milk. During cold storage of pasteurized milk no changes in N-acetylgalactosamine were observed, whereas N-acetylglucosamine decreased considerably after 15 days. No differences between untreated and

CO2-treated milks were found. A substantial decrease in N-acetylglucosamine and a gradual increase in N-acetylgalactosamine were observed in raw milk during cold storage. The former was attributed to consumption of this hexosamine by microorganisms and the latter was probably due to microbial glycosidic enzymes. The addition of CO2 to raw milk proved to be a useful treatment for milk preservation without modifying the free monosaccharide fraction.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:128651 CAPLUS

DOCUMENT NUMBER: 124:173976

TITLE: Monosaccharides and myo-Inositol in Commercial Milks

AUTHOR(S): Troyano, Esperanza; Villamiel, Mar; Olano, Agustin; Sanz, Jesus; Martinez-Castro, Isabel

CORPORATE SOURCE: Instituto de Fermentaciones Industriales, Madrid, 28006, Spain

SOURCE: Journal of Agricultural and Food Chemistry (1996), 44(3), 815-17

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monosaccharides (galactose, glucose, tagatose, 3-deoxypentulose, N-acetylglucosamine, and N-acetylgalactosamine) and myo-inositol were determined by gas chromatog. in different types of market milk (pasteurized, dried, UHT, and in-container sterilized). Glucose, myo-inositol, and N-acetylhexosamine concns. were similar to those previously found in raw milk and showed no variations due to sample type. Sterilized milk samples were characterized by the presence of tagatose and 3-deoxypentulose and, thus, could be clearly distinguished from UHT samples. The galactose level, which was found to be higher in the samples submitted to stronger thermal treatment, seems to be also a useful indicator for milk classification.

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:430722 CAPLUS  
DOCUMENT NUMBER: 141:2334  
TITLE: Polysaccharide over-producing Staphylococci with modified icaR gene and ica regulatory element, and methods for treating staphylococcal infections  
INVENTOR(S): Pier, Gerald B.; Jefferson, Kimberly  
PATENT ASSIGNEE(S): The Brigham and Women's Hospital, Inc., USA  
SOURCE: PCT Int. Appl., 98 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2004043407          | A2   | 20040527 | WO 2003-US36371 | 20031112   |
| WO 2004043407          | A3   | 20050811 |                 |            |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZW |          |                 |            |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| AU 2003290867          | A1   | 20040603 | AU 2003-290867  | 20031112   |
| US 2004175731          | A1   | 20040909 | US 2003-712391  | 20031112   |
| EP 1583517             | A2   | 20051012 | EP 2003-783450  | 20031112   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |          |                 |            |
| PRIORITY APPLN. INFO.: |  |          | US 2002-425569P | P 20021112 |
|                        |  |          | WO 2003-US36371 | W 20031112 |

AB The invention relates to nucleic acid sequences and related compns. for producing over-expression of the polysaccharide PNAG (poly-N-acetyl glucosamine), a polysaccharide antigen present on the surface of virulent strains of Staphylococci. PNAG may be isolated and formulated into vaccines or used to generate antibodies. Binding agents of the nucleic acids are also described. The invention also relates to diagnostic and therapeutic methods using the compns. It has been discovered that modifications to the intercellular adhesion (ica) locus result in altered production of PNAG. The invention relates to the discovery of transcriptional control mechanisms of the ica locus. The invention is premised in part on the identification of a 5 nucleotide motif within the ica promoter region which has a functional role in transcriptional regulation of the ica locus. This motif may function independently of IcaR protein. The invention is further premised in part on the observation that IcaR protein binds to the promoter region of the ica locus and that disruption of the icaR coding region results in over-production of polysaccharide as well as resultant biofilm.

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:412768 CAPLUS  
DOCUMENT NUMBER: 140:422798  
TITLE: N-acetyl-D-glucosamine supplemented food products and beverages  
INVENTOR(S): Rogers, Brent Daniel; Fosdick, Lawrence E.; Bohlmann, John Andrew  
PATENT ASSIGNEE(S): Cargill, Incorporated, USA  
SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

9

PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE        |
|------------------------|--|----------|-----------------|-------------|
| WO 2004041199          | A2   | 20040521 | WO 2003-US34846 | 20031031    |
| WO 2004041199          | A3   | 20040923 |                 |             |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |             |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |             |
| AU 2003286848          | A1   | 20040607 | AU 2003-286848  | 20031031    |
| US 2006003965          | A1   | 20060105 | US 2005-533414  | 20050429    |
| US 2006172392          | A1   | 20060803 | US 2006-394981  | 20060331    |
| US 2006178344          | A1   | 20060810 | US 2006-395013  | 20060331    |
| PRIORITY APPLN. INFO.: |  |          | US 2002-423119P | P 20021101  |
|                        |  |          | US 2001-785695  | B1 20010216 |
|                        |  |          | WO 2002-US25121 | A2 20020807 |
|                        |  |          | US 2002-326549  | A2 20021219 |
|                        |  |          | US 2003-685125  | A2 20031013 |
|                        |  |          | WO 2003-US34846 | W 20031031  |
| AB                     | Food products and beverages which include N-acetyl-D-glucosamine (NAG) are provided, as are methods of their preparation and use. Embodiments of the supplemented food products and beverages are heated to high temps., such as those used in pasteurization, without significant adverse effects on taste, color, odor and/or texture.   |          |                 |             |



L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:303190 CAPLUS  
 DOCUMENT NUMBER: 142:360864  
 TITLE: Effervescent and effervescent-dispersion compositions  
 for medicaments containing acid and base components  
 INVENTOR(S): Gonzales, Gilbert Rene; Gonzales, Nicholas L.  
 PATENT ASSIGNEE(S): Peditamed Pharmaceuticals, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 14 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2005074489 | A1   | 20050407 | US 2003-676408  | 20031001 |
| WO 2006078241 | A1   | 20060727 | WO 2005-US1571  | 20050120 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2003-676408 A 20031001

AB Pharmaceutical compns. comprising one or more medicaments in a pharmaceutically acceptable effervescent formulation are described. The effervescent formulation includes a first gas-dispersing component and a second gas-generating effervescent component, wherein at least one first gas is released from the first gas-dispersing component and at least one second gas is generated and evolved from the second gas-generating effervescent component, upon contact with a minimal amount of water. The formulation is placed in an aqueous vehicle wherein the formulation effervescens gases causes penetration, dispersion and distribution of the medicaments in the vehicle. The vehicle, which may be any ordinary food or beverage chosen by the patient, is then ingested by the patient for delivery of a dosage of the medicaments. For example, an acetaminophen-containing effervescent-dispersion tablet was prepared comprising (i) a mixture of acetaminophen 14.05%, PVP 0.17%, and citric acid 14.05%, and (ii) an effervescent component containing sodium bicarbonate 47.77%, simethicone 0.14%, citric acid 14.05%, sodium carbonate 4.78%, and sugar 1.69%. To prepare the gas-dispersing component, glucose and corn was mixed and heated to 162°. The resulting mixture had a moisture content of about 2.5%. The mixture was placed in a Parr reactor (a thick-shelled pressure vessel) and stirred at temperature above 100° while maintaining its fused condition. Carbon dioxide gas under 600 psi pressure was admitted and the mixture was agitated for about 6 min. The reactor was rapidly cooled to 25° and opened. The resulting product was hard and friable and contained about 4.5 mL of carbon dioxide/g product. This product was broken down into particles, screened through a 0.5 mm sieve mesh, and used in tableting.

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:412768 CAPLUS  
 DOCUMENT NUMBER: 140:422798  
 TITLE: N-acetyl-D-glucosamine supplemented food products and beverages  
 INVENTOR(S): Rogers, Brent Daniel; Fosdick, Lawrence E.; Bohlmann,

PATENT ASSIGNEE(S): John Andrew  
 SOURCE: Cargill, Incorporated, USA  
 PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 9  
 PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE        |
|------------------------|--|----------|-----------------|-------------|
| WO 2004041199          | A2   | 20040521 | WO 2003-US34846 | 20031031    |
| WO 2004041199          | A3   | 20040923 |                 |             |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |             |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |             |
| AU 2003286848          | A1   | 20040607 | AU 2003-286848  | 20031031    |
| US 2006003965          | A1   | 20060105 | US 2005-533414  | 20050429    |
| US 2006172392          | A1   | 20060803 | US 2006-394981  | 20060331    |
| US 2006178344          | A1   | 20060810 | US 2006-395013  | 20060331    |
| PRIORITY APPLN. INFO.: |  |          | US 2002-423119P | P 20021101  |
|                        |  |          | US 2001-785695  | B1 20010216 |
|                        |  |          | WO 2002-US25121 | A2 20020807 |
|                        |  |          | US 2002-326549  | A2 20021219 |
|                        |  |          | US 2003-685125  | A2 20031013 |
|                        |  |          | WO 2003-US34846 | W 20031031  |
| AB                     | Food products and beverages which include N-acetyl-D-glucosamine (NAG) are provided, as are methods of their preparation and use. Embodiments of the supplemented food products and beverages are heated to high temps., such as those used in pasteurization, without significant adverse effects on taste, color, odor and/or texture.   |          |                 |             |

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:412768 CAPLUS

DOCUMENT NUMBER: 140:422798

TITLE: N-acetyl-D-glucosamine supplemented food products and beverages

INVENTOR(S): Rogers, Brent Daniel; Fosdick, Lawrence E.; Bohlmann, John Andrew

PATENT ASSIGNEE(S): Cargill, Incorporated, USA

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE        |
|------------------------|--|----------|-----------------|-------------|
| WO 2004041199          | A2   | 20040521 | WO 2003-US34846 | 20031031    |
| WO 2004041199          | A3   | 20040923 |                 |             |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |             |
| RW:                    | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |             |
| AU 2003286848          | A1   | 20040607 | AU 2003-286848  | 20031031    |
| US 2006003965          | A1   | 20060105 | US 2005-533414  | 20050429    |
| US 2006172392          | A1   | 20060803 | US 2006-394981  | 20060331    |
| US 2006178344          | A1   | 20060810 | US 2006-395013  | 20060331    |
| PRIORITY APPLN. INFO.: |  |          | US 2002-423119P | P 20021101  |
|                        |  |          | US 2001-785695  | B1 20010216 |
|                        |  |          | WO 2002-US25121 | A2 20020807 |
|                        |  |          | US 2002-326549  | A2 20021219 |
|                        |  |          | US 2003-685125  | A2 20031013 |
|                        |  |          | WO 2003-US34846 | W 20031031  |

AB Food products and beverages which include N-acetyl-D-glucosamine (NAG) are provided, as are methods of their preparation and use. Embodiments of the supplemented food products and beverages are heated to high temps., such as those used in pasteurization, without significant adverse effects on taste, color, odor and/or texture.

L12 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1330533 CAPLUS  
DOCUMENT NUMBER: 144:74811  
TITLE: New dietary supplement composition for obesity and inflammation  
INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu  
PATENT ASSIGNEE(S): India  
SOURCE: U.S. Pat. Appl. Publ., 6 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| US 2005282772          | A1   | 20051222 | US 2005-155486  | 20050620   |
| PRIORITY APPLN. INFO.: |      |          | US 2004-580723P | P 20040621 |

AB The present invention relates to dietary supplement phytochem. compns., comprising calcium, potassium double salt of (-)-hydroxycitric acid and glucosamine hydrochloride, and optionally boswellic acids, curcuminoids, 5-hydroxytryptophan, chondroitin sulfate and L-carnitine. The claimed compns. are useful in dietary supplements, nutritional supplements or pharmaceutical preps. for weight loss and inflammatory epidemics. A phytochem. composition was prepared by mixing unit doses of the following components: calcium, potassium double salt of (-)-hydroxycitric acid (4 g), glucosamine hydrochloride (1.5 g) and boswellic acids (300 mg).

L12 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:291173 CAPLUS  
DOCUMENT NUMBER: 140:309006  
TITLE: Kits for treatment of dry skin and skin-moisturizing method  
INVENTOR(S): Takahashi, Minako; Sakurai, Akihito; Okada, Kaori; Ono, Erihi  
PATENT ASSIGNEE(S): Fanc1 Corporation, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2004107242          | A    | 20040408 | JP 2002-270731  | 20020917 |
| PRIORITY APPLN. INFO.: |      |          | JP 2002-270731  | 20020917 |

AB The kits comprise topical formulations containing olive oil, squalane, minerals derived from seawater, Ser, sugar isomer mixts., and/or trimethylglycine and oral formulations containing ceramides, hyaluronic acid, silk peptides, glucosamine, glucosamine derivs., Gly, niacin, collagen, and/or collagen degradation products. Women were administered with a tablet (180 mg) containing Gly 7.5, ceramide 0.2, niacin 1.7, silk peptide 0.5, hyaluronic acid 0.6, N-acetylglucosamine 12.5, dextrin 35.0, cellulose 35.0, and rape oil powder 7.0 weight% once a day and treated with a cosmetic pack containing H2O 52.7, dextran 11.5, carboxyvinyl polymer 0.3, diglycerin 17.0, trimethylglycine 2.0, a sugar isomer mixture 0.5, maltitol 4.0, 1,3-butylene glycol 10.0, polyoxyethylene hydrogenated castor oil 0.5, CM-cellulose Na salt 1.4, and KOH 0.1 weight% three times a wk for 2 mo. Skin moisture content in the cheek was increased to 121-130% by the

combined treatment compared to that (100%) before treatment.

L12 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:596566 CAPLUS  
DOCUMENT NUMBER: 139:122811  
TITLE: Oral and buccal compositions containing  
sourness-reducing agents  
INVENTOR(S): Miura, Isamu; Matsushima, Hiroaki  
PATENT ASSIGNEE(S): Rohto Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND              | DATE     | APPLICATION NO. | DATE     |
|------------------------|-------------------|----------|-----------------|----------|
| JP 2003221348          | A                 | 20030805 | JP 2002-20648   | 20020129 |
| PRIORITY APPLN. INFO.: |                   |          | JP 2002-20648   | 20020129 |
| OTHER SOURCE(S):       | MARPAT 139:122811 |          |                 |          |

AB This invention relates to a method for decreasing sour taste of ingredients in oral or buccal dosage forms which comprises adding 2-amino-2-deoxy-D-glucose, N-acyl derivs., or salts thereof. For example, a chewable tablet contained ascorbic acid 500, 2-amino-2-deoxy-D-glucose hydrochloride 240, succinic acid tocopherol 100, riboflavin butyrate 12, nicotinamide 15, pyridoxine hydrochloride 50, aspartame 6, silica 30, Mg stearate 12, hydroxypropyl cellulose 24, and crystalline cellulose 211 mg.

L12 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:77538 CAPLUS  
DOCUMENT NUMBER: 138:126991  
TITLE: Method of skin care using oral N-acetylglucosamine  
INVENTOR(S): Matahira, Yoshiharu; Saito, Michiko; Sugita, Nobuyuki  
PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan  
SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 558,487.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 2003022842          | A1   | 20030130 | US 2002-76686   | 20020214    |
| US 6919306             | B2   | 20050719 |                 |             |
| JP 2001048789          | A    | 20010220 | JP 1999-225245  | 19990809    |
| US 2003003116          | A1   | 20030102 | US 2000-558487  | 20000425    |
| PRIORITY APPLN. INFO.: |      |          | JP 1999-225245  | A 19990809  |
|                        |      |          | US 2000-558487  | A2 20000425 |

AB The present invention provides a method for skin care by orally administering a skin care agent comprising an ingestible carrier and natural-type N-acetyl-D-glucosamine (NAG) obtainable by hydrolysis of chitin with an acid, an enzyme, or an acid and an enzyme. The natural-type NAG is contained in an amount of 0.1-99.9% by weight, by which the moisture and tension of skin can be improved and the rough skin and fine wrinkles can be prevented or ameliorated. The skin care agent may be a skin care agent containing chitin oligosaccharide in an amount of 0.1-20% by weight and natural-type NAG in an amount of 0.1-99.9% by weight; or a skin care agent containing collagen peptide in an amount of 0.1-99.9% by weight and natural-type

NAG in an amount of 0.1-99.9% by weight For example, tablets (300 mg /tablet) were prepared from granulation containing NAG 40%, collagen 30%, lactose 15%, cellulose 10%, citric acid 2%, perfume 2%, and sucrose fatty ester 1%.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:87147 CAPLUS

DOCUMENT NUMBER: 136:123697

TITLE: Blood flow improvers and thrombosis inhibitors comprising glucosamine

INVENTOR(S): Saito, Tatsuji; Sakamoto, Koji

PATENT ASSIGNEE(S): Koyo Chemical Co., Ltd., Japan; Dainichiseika Color & Chemicals Mfg. Co., Ltd.

SOURCE: Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| EP 1175906  | A1   | 20020130 | EP 2001-116699  | 20010717    |
| EP 1175906  | B1   | 20051109 |                 |             |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO |      |          |                 |             |
| JP 2002097143   | A    | 20020402 | JP 2000-318354  | 20001018    |
| NO 2001003534   | A    | 20020121 | NO 2001-3534    | 20010717    |
| US 2002032173   | A1   | 20020314 | US 2001-906770  | 20010718    |
| US 7001894  | B2   | 20060221 |                 |             |
| CN 1397282  | A    | 20030219 | CN 2001-125452  | 20010718    |
| KR 2005079230   | A    | 20050809 | KR 2005-56927   | 20050629    |
| PRIORITY APPLN. INFO.:  |      |          |                 |             |
|   |      |          | JP 2000-217983  | A 20000718  |
|   |      |          | JP 2000-318354  | A 20001018  |
|   |      |          | KR 2001-42900   | A3 20010716 |

AB Glucosamine salts and derivs. are effective for the improvement of blood flow, and hence, for the prevention and/or treatment of diseases caused by blood flow disturbances, such as thrombosis. Use of glucosamine salts or glucosamine derivs. as active ingredients can provide blood flow improvement, thrombosis prevention, and dietetic drinks or foods for the improvement of blood flow or for the prevention and/or treatment of thrombosis. Administration of glucosamine salts or glucosamine derivs. can improve blood flow and can prevent and/or treat thrombosis. Thus, a formulation contained erythritol 5, trehalose 1, glucosamine-HCl 1.5, cyclic and oligosaccharide 1.5 g, vitamins B1, B2, and B6 17 mg, flavor traces.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:114783 CAPLUS

DOCUMENT NUMBER: 134:168078

TITLE: Skin care of food composition containing n-acetyl-glucosamine

INVENTOR(S): Matahira, Yoshiharu; Saito, Michiko

PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| EP 1075836  | A2   | 20010214 | EP 2000-303523   | 20000427   |
| EP 1075836  | A3   | 20010425 |                  |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO |      |          |                  |            |
| JP 2001048789   | A    | 20010220 | JP 1999-225245   | 19990809   |
| TW 253905   | B    | 20060501 | TW 2000-89107810 | 20000426   |
| CN 1283413  | A    | 20010214 | CN 2000-108263   | 20000428   |
| HK 1034648  | A1   | 20050722 | HK 2001-105502   | 20010808   |
| JP 2005211078   | A    | 20050811 | JP 2005-106262   | 20050401   |
| PRIORITY APPLN. INFO.:  |      |          | JP 1999-225245   | A 19990809 |

AB The present invention provides a skin care agent comprising N-acetylglucosamine as an active ingredient. The skin care agent is preferably in the form of tablets, capsules, powder such as dust or granules, liquid or paste. The skin care agent of the present invention may be incorporated into foods such as confectioneries, powdered soup and beverages. By orally ingesting the skin care agent of the present invention, the N-acetylglucosamine as an active ingredient is rapidly absorbed, and by utilizing a part thereof as a starting material of acidic mucopolysaccharides such as hyaluronic acid or chondroitin sulfate, the moisture and tension of skin can be improved and the rough skin and fine wrinkles can be prevented or ameliorated. For example, a significant improvement in females with xeroderma and rough skin was observed by administration of N-acetylglucosamine tablets (200 mg/tablet, 5 tablets/day) for 8 wk, compared to females taking placebo of non-NAG-containing tablets.

> d 115 1 ibib abs

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:393971 CAPLUS

DOCUMENT NUMBER: 131:29576

TITLE: Detection of chitin and diagnosis of fungal infections using chitovibrin from Vibrio as a chitin-binding lectin

INVENTOR(S): Laine, Roger A.

PATENT ASSIGNEE(S): Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, USA

SOURCE: U.S., 10 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| -----                  | ---- | -----    | -----           | -----       |
| US 5914239             | A    | 19990622 | US 1996-745881  | 19961108    |
| US 6121420             | A    | 20000919 | US 1999-290836  | 19990413    |
| PRIORITY APPLN. INFO.: |      |          | US 1995-35112P  | P 19951115  |
|                        |      |          | US 1996-745881  | A3 19961108 |

AB A 134 kDa, calcium-independent, chitin-binding lectin called chitovibrin is secreted by marine bacteria of the genus Vibrio. The secretion of chitovibrin is inducible by chitin or chitin-oligomers. Chitovibrin shows no apparent enzymic activity, but has a strong affinity for chitin and for chito-oligomers dp9 and larger. The protein has an isoelec. pH of 3.6, shows thermal tolerance, binds chitin with an optimum at pH 6 and is active in 0-4 M NaCl. Chitovibrin is useful as a stain for fungi and other chitin-containing organisms. Chitovibrin may be used to detect the presence of chitin, particularly in diagnosing fungal infections in humans, animals, and plant materials. Fungal infections are a particular problem in immunocompromised hosts such as AIDS patients and bone marrow transplant patients, because they can cause opportunistic infections. The chitovibrin diagnostic method allows the convenient, broad spectrum diagnosis of fungal infections in tissue samples or in body fluids. Other, smaller polypeptide fragments of chitovibrin will exhibit similar chitin-binding properties, and could be used in coupling to detection systems.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



L16 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1029393 CAPLUS  
DOCUMENT NUMBER: 145:355581  
TITLE: Production method of N-acetylglucosamine containing composition and foods and drinks containing n-acetylglucosamine containing composition  
INVENTOR(S): Matahira, Yoshiharu; Watanabe, Kazuhiro  
PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 13pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| JP 2006262752 | A    | 20061005 | JP 2005-84077   | 20050323 |

PRIORITY APPLN. INFO.: JP 2005-84077 20050323

AB The invention provides a production method of N-acetylglucosamine and N-acetylglucosamine containing composition obtained from the spray-dried N-acetylglucosamine sugar composition mixed with fish-derived collagens. Chitin is partially hydrolyzed with HCl, neutralized, desalted by electrodialysis with ion-exchanging membrane, subjected to glucosamine removal by adsorption with ion exchangers, incubated with enzymes to release N-acetylglucosamine, and spray-dried to get the N-acetylglucosamine sugar composition. The N-acetylglucosamine sugar composition contains 80 - 90 weight % of N-acetylglucosamine and 1 - 20 weight % of chitooligosaccharides. The average mol. wts. of fish-derived collagens used are between 1,000 - 10,000. The ratios between N-acetylglucosamine or the N-acetylglucosamine sugar composition and the collagens are 5 - 90 weight % of N-acetylglucosamine or N-acetylglucosamine sugar composition and 10 - 95 weight % of collagens. Starch, dextrin, lactose and trehalose may be added to the N-acetylglucosamine sugar composition. 0.01-30 Weight % of the N-acetylglucosamine containing composition is used as additives to foods and beverages.

L16 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:677720 CAPLUS  
DOCUMENT NUMBER: 145:102730  
TITLE: Gelled beverages containing fish-derived collagen peptides and indigestible dextrin  
INVENTOR(S): Ishiwata, Tomoko; Okada, Mamoru; Tagata, Yoshisaku; Nakajima, Masatami  
PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| JP 2006180812 | A    | 20060713 | JP 2004-379402  | 20041228 |

PRIORITY APPLN. INFO.: JP 2004-379402 20041228

AB The beverages, whose fish odor is masked, optionally contain chitin hydrolyzates, vitamin C, and/or vitamin B2. Thus, an orange-flavored gelled beverages, manufactured from H2O, indigestible dextrin, dextrin, Marine Matrix (collagen peptide), orange juice, hydrogenated maltose syrup, xylitol, agar, erythritol, vitamin B2 etc.,

had good texture and slight fish odor.

L16 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:266057 CAPLUS  
DOCUMENT NUMBER: 144:460518  
TITLE: Effects and safety of soy milk beverage  
containing N-acetyl glucosamine on osteoarthritis  
AUTHOR(S): Hatano, Kenji; Miyakumi, Yoichiro; Hayashida, Kenji;  
Nakagawa, Satoshi  
CORPORATE SOURCE: Takara Shuzo Co., Ltd., Japan  
SOURCE: Japanese Pharmacology & Therapeutics (2006), 34(1),  
149-165  
CODEN: JPTABU  
PUBLISHER: Raifu Saiensu Shuppan K.K.  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

AB N-acetyl glucosamine is an amino sugar and a monomeric unit of chitin, a polysaccharide forming structural polymers in the exoskeletons of crustaceans. In humans, it exists in skin, cartilage and blood vessel as a component of hyaluronic acid, and bone tissue, cornea and aorta as a component of keratan sulfate. Osteoarthritis is one of the representative diseases, which disturb joint function and decrease the quality of life. One of the possible causes of osteoarthritis is decrease of amount of N-acetyl glucosamine in age, then feeding N-acetyl glucosamine could become its symptom better. In the present study, we assessed the effect and safety of a soy milk beverage containing N-acetyl glucosamine on osteoarthritis of knee joint, in the way of double-blind placebo-controlled, parallel group study. The subjects were 67 adults (male/female: 27/40, age: 54.3±12.8), who felt slight pain, stiffness, and/or discomfort in their knee joints. They had never been treated the knee osteoarthritis by medication. The treatment group was given, once a day for 12 wk, the test beverage (200mL) containing 1000mg or more of N-acetyl glucosamine, and the control group was given the soy milk beverage without N-acetyl glucosamine. The results revealed that, the pain on going up and down the stairs and the pain at rest were significantly reduced in the treatment group compared with the placebo group at 8 wk. Range of motion (ROM) in the treatment group was also significantly improved compared with the placebo group at 8 wk. Blood examination, phys. examination and history taking did not reveal any adverse reactions of clin. importance. These results thus demonstrated that the long-term intake of the soy milk beverage containing N-acetyl glucosamine improves the subjective symptom and range of motion in subjects with slight pain, stiffness, and/or discomfort at knee joint.

L16 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:275427 CAPLUS  
DOCUMENT NUMBER: 142:315332  
TITLE: N-acetylglucosamine sugar composition preparation for  
food additives  
INVENTOR(S): Katsumi, Ryosuke; Okuno, Michiko  
PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2005080605          | A    | 20050331 | JP 2003-318145  | 20030910 |
| PRIORITY APPLN. INFO.: |      |          | JP 2003-318145  | 20030910 |

AB Chitin is partially hydrolyzed with HCl, neutralized, desalted by electrodialysis with ion-exchanging membrane, subjected to glucosamine

removal by adsorption with ion exchangers, incubated with enzymes to release N-acetylglucosamine, and spray-dried to get the N-acetylglucosamine sugar composition The N-acetylglucosamine sugar composition has lower sweetness and calorie than that of pure N-acetylglucosamine. It contains N-acetylglucosamine 80-90 weight% and chitooligosaccharides 10-20. It is used as additive to beverages except milk beverages. Dextrin, starch, lactose, and/or trehalose may be added to the N-acetylglucosamine sugar composition

L16 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:275426 CAPLUS  
DOCUMENT NUMBER: 142:315689  
TITLE: Storage-stable milk beverages with good flavor and their use for treatment of osteoarthritis  
INVENTOR(S): Matahei, Yoshiharu; Kikuchi, Kazuaki; Hatamoto, Hitoshi; Ikesumi, Masahiro  
PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan; Mippon Milk Community Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2005080604          | A    | 20050331 | JP 2003-318139  | 20030910 |
| PRIORITY APPLN. INFO.: |      |          | JP 2003-318139  | 20030910 |

AB Title beverages contain 0.025-37.5 mass% sugar compns. containing 80-90 mass% N-acetylglucosamine (I) and 10-20 mass% chitin oligosaccharide (II). Thus, low-fat milk composition containing 82:18 I-II mixture  
(manufactured by hydrolysis of chitin and enzyme treatment of the oligosaccharide) showed efficacy in osteoarthritis.

L16 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:874165 CAPLUS  
DOCUMENT NUMBER: 136:5158  
TITLE: Health drinking water.  
INVENTOR(S): Makino, Hideya; Muto, Masayuki  
PATENT ASSIGNEE(S): Yoshida, Isao, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2001333750          | A    | 20011204 | JP 2000-158080  | 20000529 |
| PRIORITY APPLN. INFO.: |      |          | JP 2000-158080  | 20000529 |

AB The health drinking water contains mainly mineral water with the addition of glucosamine, chitosan oligosaccharide, N-acetylglucosamine, and chitin oligosaccharide.

L16 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:194762 CAPLUS  
DOCUMENT NUMBER: 134:227409  
TITLE: Oral compositions containing grape polyphenols, collagens, and chitin hydrolyzates  
INVENTOR(S): Teraoka, Keiko; Kawai, Yasuhiro

PATENT ASSIGNEE(S): Sunstar, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2001072582          | A    | 20010321 | JP 1999-252455  | 19990907 |
| PRIORITY APPLN. INFO.: |      |          | JP 1999-252455  | 19990907 |

AB This invention provides oral prepn. containing grape polyphenols, collagen hydrolyzates, and/or chitin hydrolyzates for the prevention and treatment of arthralgia, lumbago, and sciatica. The polyphenols include reveratrol derivs., catechins, and flavonols. A tablet contained N-acetylglucosamine 10, reduced maltose syrup 20, lactose 17, sucrose fatty acid esters 3, and bovine collagen hydrolyzates (average mol. weight 3000) q.s. to 100 %.

L16 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:393971 CAPLUS  
 DOCUMENT NUMBER: 131:29576  
 TITLE: Detection of chitin and diagnosis of fungal infections using chitovibrin from Vibrio as a chitin-binding lectin  
 INVENTOR(S): Laine, Roger A.  
 PATENT ASSIGNEE(S): Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, USA  
 SOURCE: U.S., 10 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 5914239             | A    | 19990622 | US 1996-745881  | 19961108    |
| US 6121420             | A    | 20000919 | US 1999-290836  | 19990413    |
| PRIORITY APPLN. INFO.: |      |          | US 1995-35112P  | P 19951115  |
|                        |      |          | US 1996-745881  | A3 19961108 |

AB A 134 kDa, calcium-independent, chitin-binding lectin called chitovibrin is secreted by marine bacteria of the genus Vibrio. The secretion of chitovibrin is inducible by chitin or chitin-oligomers. Chitovibrin shows no apparent enzymic activity, but has a strong affinity for chitin and for chito-oligomers dp9 and larger. The protein has an isoelec. pH of 3.6, shows thermal tolerance, binds chitin with an optimum at pH 6 and is active in 0-4 M NaCl. Chitovibrin is useful as a stain for fungi and other chitin-containing organisms. Chitovibrin may be used to detect the presence of chitin, particularly in diagnosing fungal infections in humans, animals, and plant materials. Fungal infections are a particular problem in immunocompromised hosts such as AIDS patients and bone marrow transplant patients, because they can cause opportunistic infections. The chitovibrin diagnostic method allows the convenient, broad spectrum diagnosis of fungal infections in tissue samples or in body fluids. Other, smaller polypeptide fragments of chitovibrin will exhibit similar chitin-binding properties, and could be used in coupling to detection systems.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:325523 CAPLUS

DOCUMENT NUMBER: 142:372895

TITLE: Low-sugar and low-flour food composition and its manufacture

INVENTOR(S): Slilaty, George E.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 2005079247          | A1   | 20050414 | US 2003-683378  | 20031014 |
| PRIORITY APPLN. INFO.: |      |          | US 2003-683378  | 20031014 |

AB A food composition includes a base that is not primarily of flour and sugar, and a supplement (e.g., vitamins, minerals, amino acids, etc.). Thus, the base may include plant and grain proteins, fiber, carbohydrates, etc. Other base components may include milk (or milk proteins) and egg or egg derivs. The composition is functional as a substitute for traditional flour-and-sugar food products to mimic the organeoleptic properties of such traditional food products to thus provide the consumer with a product that is both tasty and pleasant in smell while simultaneously affording the consumer with a properly nutritious product to meet needed dietary requirements for a healthy lifestyle. Examples include muffins, doughnuts, pastas, pancakes and waffles. A method of making this food composition is also provided.

L20 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:182077 CAPLUS

DOCUMENT NUMBER: 142:284789

TITLE: Antiaging cosmetics containing antioxidants and free-radical neutralizing agents and antiinflammatories and collagen/fibrin boosting agents

INVENTOR(S): Gupta, Shyam K.

PATENT ASSIGNEE(S): Bioderm Research, USA

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 2005048008          | A1   | 20050303 | US 2003-604999  | 20030829 |
| PRIORITY APPLN. INFO.: |      |          | US 2003-604999  | 20030829 |

AB The present invention provides a comprehensive solution to the problems associated with natural topical aging via the incorporation of an extra-cellular antioxidant or free-radical neutralizing composition, with intra-cellular antioxidant or free-radical neutralizing composition, and anti-inflammatory composition, and collagen or fibrin boosting composition It is preferred to also have the above incorporated in a suitable carrier base or topical delivery system for skin, nail, and hair beneficial applications. For example, a shampoo composition contained sodium lauryl ether sulfate 35.0, water 55.4, cinnamidopropyl trimonium N-acetyl cysteinate 5.0, preservatives 0.5, Laureth-3 2.5, Rosmarinic acid 0.1, Darutoside 1.0, Niacinamide ascorbate 0.5%.

L20 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:738857 CAPLUS

DOCUMENT NUMBER: 141:230741

TITLE: Skin anti-aging compositions and/or kit for treatment/prevention of rough skin

INVENTOR(S): Ono, Erika; Okada, Kaori

PATENT ASSIGNEE(S): FancI Corporation, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2004250372          | A    | 20040909 | JP 2003-42219   | 20030220 |
| PRIORITY APPLN. INFO.: |      |          | JP 2003-42219   | 20030220 |

AB The invention relates to a beverage composition characterized by containing skin-improving agent and alc. for treatment and/or prevention of skin aging and roughening. A kit for treatment/prevention of rough skin and skin aging consisting of the beverage and soybean germ. topical composition is also disclosed. Skin beautifying beverage containing gelatin hydrolyzate 2, soybean saponin 0.5, soybean isoflavon 0.5, ceramide 0.1, glucosamine 2, citric acid 4, plum liquor 36, brewing alc. 15, fructose 6, glucose 2, oligosaccharide 2, and water balance to 100 % was formulated.

L20 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:961116 CAPLUS

DOCUMENT NUMBER: 140:19850

TITLE: Medicinal beverage and additive containing glucosamines  
 INVENTOR(S): Martin, Kenneth A.; Barr, Teresa Leigh  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 6660308    | B1   | 20031209 | US 2002-241542  | 20020911 |
| US 6969533    | B1   | 20051129 | US 2003-630569  | 20030730 |
| US 2004254095 | A1   | 20041216 | US 2003-725608  | 20031202 |
| US 2004253295 | A1   | 20041216 | US 2003-725609  | 20031202 |
| US 6900173    | B2   | 20050531 |                 |          |
| US 2004253227 | A1   | 20041216 | US 2003-725610  | 20031202 |
| US 2004253296 | A1   | 20041216 | US 2003-725611  | 20031202 |

PRIORITY APPLN. INFO.: US 2002-241542 A2 20020911

AB The invention is a beverage made of a fluid and a one time daily dosage amount in an ingestible amount for treating an inflammatory tissue or arthritic condition in a mammal involving tissue that is underperfused tissue, inflamed joints, and inflamed muscle, wherein said dosage is a rapid absorbing large amount made of a glucosamine sulfate, a glucosamine hydrochloride, and an N-acetylglucosamine and combinations thereof, chondroitin sulfate, chondroitin-HCl and combinations, a vasodialating sulfonate with at least one Me group, and a buffer to reduce adverse symptoms from large amts. of glucosamine and chondroitin selected from the family of Araliaceae and a B3 vitamin.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:610277 CAPLUS

DOCUMENT NUMBER: 139:143907

TITLE: Cycloglycans for the treatment of mammalian infection

INVENTOR(S): Stahl, Bernd; Finke, Berndt; Schmitt, Joachim; Goebel, Werner; Slaghius, Jorg; Boehm, Gunther

PATENT ASSIGNEE(S): N.V. Nutricia, Neth.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| WO 2003063882   | A1   | 20030807 | WO 2003-EP505    | 20030120 |
| WO 2003063882   | A8   | 20041229 |                  |          |
| W: AL, CA, CN, ID, JP, LT, LV, MK, RO, US   |      |          |                  |          |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR                        |      |          |                  |          |
| DE 10203999   | A1   | 20030814 | DE 2002-10203999 | 20020201 |
| EP 1469866  | A1   | 20041027 | EP 2003-706365   | 20030120 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |      |          |                  |          |
| CN 1627949  | A    | 20050615 | CN 2003-803167   | 20030120 |
| US 2005222080   | A1   | 20051006 | US 2004-502059   | 20040802 |

PRIORITY APPLN. INFO.: DE 2002-10203999 A 20020201  
 WO 2003-EP505 W 20030120

AB The invention discloses the use of cycloglycans, in particular

homopolymeric cycloglycans with an annular base structure of 2 to 40 monosaccharides in the ring, for the prevention of the invasion and infection of mammalian cells by pathogens. The treatment of diseases caused by such pathogens and foodstuffs and dietetic and pharmaceutical products comprising the above cycloglycans are also disclosed.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:282111 CAPLUS

DOCUMENT NUMBER: 138:286531

TITLE: Nutritional compositions, kits, and methods for promoting defined health benefits

INVENTOR(S): Kern, Kenneth norman; Heisey, Matthew Thomas

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 586,213, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| US 2003069202   | A1   | 20030410 | US 2001-760280  | 20010112    |
| CA 2408609  | A1   | 20011213 | CA 2001-2408609 | 20010601    |
| WO 2001093847   | A2   | 20011213 | WO 2001-US17714 | 20010601    |
| WO 2001093847   | A3   | 20020425 |                 |             |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, SZ, BE, CY, FR, GR, IE, IT, MC, NL, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, NE, SN, TD, TG |      |          |                 |             |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |             |
| EP 1289510  | A2   | 20030312 | EP 2001-946030  | 20010601    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |             |
| JP 2003535126   | T    | 20031125 | JP 2002-501420  | 20010601    |
| BR 2001011381   | A    | 20031216 | BR 2001-11381   | 20010601    |
| PRIORITY APPLN. INFO.:  |      |          |                 |             |
|   |      |          | US 2000-586213  | B2 20000602 |
|   |      |          | US 2001-760280  | A 20010112  |
|   |      |          | WO 2001-US17714 | W 20010601  |

AB The present invention is directed to compns. comprising: (a) a first component selected from the group consisting of gelatin, cartilage, aminosugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, salts thereof, and mixts. thereof; and (b) a second component comprising: (i) a cation source selected from the group consisting of calcium, potassium, magnesium, and mixts. thereof; and (ii) an edible acid source. The present invention is further directed to food, beverage, pharmaceutical, over-the-counter, and dietary supplement products, which comprise the present compns. The invention also relates to kits comprising the present compns. and information that use of the composition promotes one or more of the presently defined health benefits, including joint health, bone health, cardiac health, and anti-inflammation. The present invention addnl. relates to methods of treating joint function, bone function, cardiac function, or inflammation comprising administering to a mammal a composition as defined herein.



L20 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:234866 CAPLUS

DOCUMENT NUMBER: 138:384423

TITLE: Optimization of the viability of probiotics in a new fermented milk drink by the genetic algorithms for response surface modeling

AUTHOR(S): Chen, M.-J.; Chen, K.-N.; Lin, C.-W.

CORPORATE SOURCE: Dept. of Food Science and Technology, Deh-Yu Inst. of Technology, Chi-lung, Taiwan

SOURCE: Journal of Food Science (2003), 68(2), 632-638

CODEN: JFDSA3; ISSN: 0022-1147

PUBLISHER: Institute of Food Technologists

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Calcium gluconate (0.0 to 0.5%), sodium gluconate (0.0 to 1.0%), and N-acetylglucosamine (0.0 to 1.0%) were added to skim milk to retain the viability of Lactobacillus acidophilus and Bifidobacterium longum. To carry out response surface modeling, the regression method was performed on exptl. results to build math. models. The models were then formulated as an objective function in an optimization problem that was consequently optimized using a genetic algorithm approach to obtain the maximum viability of the probiotics. The genetic algorithms (GAs) were examined to search for the optimal value. The results indicated that GAs were very effective for optimizing the activity of probiotic cultures.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:97264 CAPLUS

DOCUMENT NUMBER: 138:131114

TITLE: Methods for treating joint inflammation, pain, and loss of mobility

INVENTOR(S): McPeak, Patricia; Cheruvanky, Rukmini; Cherukuri, Reddy Sastry V.; Mazhar, Mohammed

PATENT ASSIGNEE(S): Nutrastar, USA

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| WO 2003009741 | A2   | 20030206 | WO 2002-US23508 | 20020723 |
| WO 2003009741 | A3   | 20030724 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |
| US 2003118672 | A1   | 20030626 | US 2001-12270   | 20011106 |
| US 6902739    | B2   | 20050607 |                 |          |
| CA 2454658    | A1   | 20030206 | CA 2002-2454658 | 20020723 |
| EP 1416966    | A2   | 20040512 | EP 2002-742424  | 20020723 |
| R:            | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |          |                 |          |
| JP 2005501043 | T  | 20050113 | JP 2003-515140  | 20020723 |
| US 2005158406 | A1   | 20050721 | US 2005-81223   | 20050315 |

US 2005214392 A1 20050929 US 2005-139205 20050526  
PRIORITY APPLN. INFO.: US 2001-307588P P 20010723  
US 2001-12270 A 20011106  
WO 2002-US23508 W 20020723

AB This invention provides methods and formulations for treating an inflammatory disease or reducing an inflammatory reaction comprising administering a fortified formulation comprising stabilized rice bran derivative and a fortification agent. Preferred rice bran derivs. are rice bran oil and the solubilized fraction of rice bran. Preferred fortification agents are glucosamine derivative, methylsulfonylmethane, yucca concentrate, and grape seed extract

L20 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:504633 CAPLUS  
DOCUMENT NUMBER: 137:52423  
TITLE: Drugs against articular failure containing amino sugars and trehalose  
INVENTOR(S): Fukuda, Shigeharu; Ario, Takeshi; Miyake, Toshio  
PATENT ASSIGNEE(S): Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo, Japan  
SOURCE: PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| WO 2002051424   | A1   | 20020704 | WO 2001-JP11147  | 20011219   |
| WO 2002051424   | A8   | 20020801 |                  |            |
| W: KR, US   |      |          |                  |            |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR    |      |          |                  |            |
| JP 2002193811   | A    | 20020710 | JP 2000-391390   | 20001222   |
| EP 1354590  | A1   | 20031022 | EP 2001-994973   | 20011219   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR |      |          |                  |            |
| TW 235660   | B    | 20050711 | TW 2001-90131898 | 20011221   |
| US 2004038929   | A1   | 20040226 | US 2003-451224   | 20030623   |
| PRIORITY APPLN. INFO.:  |      |          | JP 2000-391390   | A 20001222 |
|   |      |          | WO 2001-JP11147  | W 20011219 |

AB It is intended to provide compns. which exert an effect of restoring articular failure at a level superior to aminosugars and glycosaminoglycan. This problem is solved by providing drugs against articular failure which contain as the active ingredients an aminosugar and trehalose. The compns. containing aminosugar and trehalose are suitable for use in oral pharmaceutical compns., cosmetics, and foods. A powder composition containing trehalose (Trehalose) 4, glucosamine 1 parts was prepared for use

in a pharmaceutical, cosmetic, or food composition

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:903816 CAPLUS  
DOCUMENT NUMBER: 136:42843  
TITLE: Compositions, kits, and methods for promoting defined health benefits  
INVENTOR(S): Kern, Kenneth Norman; Heisey, Matthew Thomas  
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
SOURCE: PCT Int. Appl., 45 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO. | DATE       |
|------------------------|--|----------|-----------------|------------|
| WO 2001093847          | A2   | 20011213 | WO 2001-US17714 | 20010601   |
| WO 2001093847          | A3   | 20020425 |                 |            |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, SZ, BE, CY, FR, GR, IE, IT, MC, NL, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, NE, SN, TD, TG |          |                 |            |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |          |                 |            |
| US 2003069202          | A1   | 20030410 | US 2001-760280  | 20010112   |
| CA 2408609             | A1   | 20011213 | CA 2001-2408609 | 20010601   |
| EP 1289510             | A2   | 20030312 | EP 2001-946030  | 20010601   |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |          |                 |            |
| JP 2003535126          | T  | 20031125 | JP 2002-501420  | 20010601   |
| BR 2001011381          | A  | 20031216 | BR 2001-11381   | 20010601   |
| PRIORITY APPLN. INFO.: |  |          | US 2000-586213  | A 20000602 |
|                        |  |          | US 2001-760280  | A 20010112 |
|                        |  |          | WO 2001-US17714 | W 20010601 |

AB The present invention is directed to compns. comprising: (a) a first component selected from the group consisting of gelatin, cartilage, amino sugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, S-adenosylmethionine, salts and mixts.; and (b) a second component comprising a cation source selected from the group consisting of calcium, potassium, magnesium, and mixts. and an edible acid source. The present invention is further directed to food, beverage, pharmaceutical, over-the-counter, and dietary supplement products, which comprise the present compns. The invention also relates to kits comprising the present compns. and information that use of the composition promotes one or more of the presently defined health benefits, including joint health, bone health, cardiac health, and anti-inflammation. The present invention addnl. relates to methods of treating joint function, bone function, cardiac function, or inflammation comprising administering to a mammal a composition as defined herein. Thus, hard lemon candies are prepared by combining the following components as indicated: sugar 200, light corn syrup 63, water 60, lemon flavor glucosamine-HCl 16, and calcium citrate malate 14.9 g.

L20 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:719487 CAPLUS  
DOCUMENT NUMBER: 129:315186  
TITLE: Simultaneous determination of monosaccharides and oligosaccharides by normal-phase HPLC  
AUTHOR(S): Kakita, Hirotaka; Kitamura, Takao; Komiya, Katsuo; Kato, Yoshio  
CORPORATE SOURCE: Shikoku Natl. Ind. Res. Inst., AIST, Takamatsu, 761-0395, Japan  
SOURCE: Shokuhin Eiseigaku Zasshi (1998), 39(5), 333-340  
CODEN: SKEZAP; ISSN: 0015-6426  
PUBLISHER: Nippon Shokuhin Eisei Gakkai  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese

AB A rapid and highly sensitive method was developed for the simultaneous determination of reducing monosaccharides and oligosaccharides by normal-phase HPLC with fluorescence detection. The technique of linear gradient

elution on a TSKgel Amide-80 column was more suitable for saccharides separation. The post-column reaction was optimized for fluorometric detection. Under optimum conditions, the detection limits were 0.3-15 ng for the reducing saccharides investigated. The calibration curves were approx. linear in the range of 2000-12.5 pmol for glucose, cellobiose, and cellopentaose. The coefficient of variation for glucose was less than 1%. Application of the method for food anal. was successful.

L20 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:50447 CAPLUS

DOCUMENT NUMBER: 128:162380

TITLE: HPLC separations of a broad spectrum of small molecular weight analytes on cation-exchange columns  
AUTHOR(S): Talmadge, Kenneth W.; Siebert, Christopher J.; Wood, Roy

CORPORATE SOURCE: Life Science group at Bio-Rad Laboratories, Hercules, CA, 94547, USA

SOURCE: American Laboratory (Shelton, Connecticut) (1997), 29(24), 37-43

CODEN: ALBYBL; ISSN: 0044-7749

PUBLISHER: International Scientific Communications, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Aminex HPLC columns, packed with a polymer-based matrix, offer many advantages for the anal. of carbohydrates, alcs., and organic acids in foods and beverages, biochem., biomedical, and biotechnol. applications. The columns allow a variety of sepns. without the disadvantages of bonded-phase silica HPLC. Complicated solvent systems, sample derivatization, and gradient elution schemes are not required for analyses using polymerbased columns. The resins exhibit high pressure stability and pH stability over a wide range. Large mols. elute early in the separation, rather than binding irreversibly to the matrix. This results in very stable HPLC columns exhibiting high column efficiencies.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1278408 CAPLUS

DOCUMENT NUMBER: 146:6895

TITLE: Articular cartilage injury and tendon lesion curing stimulators and foods and drinks containing them

INVENTOR(S): Matahei, Yoshiharu; Utsuka, Naoaki; Minami, Saburo; Okamoto, Yoshiharu; Okamura, Yasuhiko

PATENT ASSIGNEE(S): Yaizu Suisan Kagaku Industry Co., Ltd., Japan; Tottori University

SOURCE: Jpn. Kokai Tokkyo Koho, 25pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2006327979          | A    | 20061207 | JP 2005-153013  | 20050525 |
| PRIORITY APPLN. INFO.: |      |          | JP 2005-153013  | 20050525 |

AB The invention provides of articular cartilage damage and tendon lesion curing stimulators containing collagen peptides and N-acetylglucosamine derived from fishes. Moreover, foods and beverages containing collagen peptides and N-acetylglucosamine derived from fishes are used for promotion of articular cartilage damage curing and tendon lesion curing.

L20 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:578086 CAPLUS

DOCUMENT NUMBER: 145:27047

TITLE:  $\alpha$ -Lipoic acid and coenzyme Q10 for control of obesity

INVENTOR(S): Hamaura, Mayumi

PATENT ASSIGNEE(S): Rohto Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2006151909          | A    | 20060615 | JP 2004-347906  | 20041130 |
| PRIORITY APPLN. INFO.: |      |          | JP 2004-347906  | 20041130 |

AB An peroral composition for control of lipid/fat accumulation in white adipose tissue comprises  $\alpha$ -lipoic acid, coenzyme Q10, and amino acids selected from valine, leucine, and/or isoleucine. Optionally. vitamins and other amino acids were also used in the peroral composition

L20 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:192757 CAPLUS

DOCUMENT NUMBER: 144:232118

TITLE: Beverages containing hyaluronic acid and N-acetylglucosamine for beauty care

INVENTOR(S): Kawasaki, Yoshiaki

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 2006056809          | A    | 20060302 | JP 2004-238757  | 20040818 |
| PRIORITY APPLN. INFO.: |      |          | JP 2004-238757  | 20040818 |

AB The beverages for beauty care contain hyaluronic acid, N-acetylglucosamine, and optionally, vitamin C. Preferably, the beverages are packaged in portion-type containers. The beverages show long-lasting skin-moisturizing and -conditioning effects (no data). Acerola-flavored beverages were manufactured

L20 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:1345039 CAPLUS  
 DOCUMENT NUMBER: 144:74832  
 TITLE: Beverage and additives for wellness  
 INVENTOR(S): Martin, Kenneth A.; Barr, Teresa Leigh  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 4 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| US 6979458             | B1   | 20051227 | US 2002-241544  | 20020911 |
| PRIORITY APPLN. INFO.: |      |          | US 2002-241544  | 20020911 |

AB The invention is an ingestible wellness one time daily dosage made of a large quantity of rapid absorbing glucosamine sulfate, glucosamine hydrochloride, and an n-acetyl glucosamine and combinations thereof, a large quantity of chondroitin sulfate, chondroitin-HCl and combinations thereof, a vasodilating sulfonate with at least one Me group, and a buffer to reduce adverse symptoms from large amts. of glucosamine and chondroitin selected from the family of Araliaceae and a vitamin B3, wherein the invention is also a wellness beverage that involves a fluid combined with the ingestible wellness dosage.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:1255782 CAPLUS  
 DOCUMENT NUMBER: 143:483041  
 TITLE: Beverage and additive for inflamed tissue  
 INVENTOR(S): Martin, Kenneth A.; Barr, Teresa Leigh  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 4 pp., Cont.-in-part of U.S. Ser. No. 241,542.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 6969533             | B1   | 20051129 | US 2003-630569  | 20030730    |
| US 6660308             | B1   | 20031209 | US 2002-241542  | 20020911    |
| PRIORITY APPLN. INFO.: |      |          | US 2002-241542  | A2 20020911 |

AB The invention is a beverage involving an ingestible fluid and a dosage amount of an ingestible composition for treating an inflammatory tissue in

a mammal, involving the inflammatory tissue selected from the group comprising underperfused tissue, inflamed joints, inflamed muscles, wherein the dosage amount has a glucose ingredient, such as glucosamine sulfate, glucosamine hydrochloride, n-acetyl glucosamine, and combinations

thereof; a chondroitin component, such as chondroitin sulfate, chondroitin hydrochloride, and combinations thereof; a member of the family of araliaceae for buffering the ingestion of the glucose ingredient, such as American ginseng, Siberian ginseng, panax ginseng, and combinations thereof; a calcium containing component; and a sulfonate having at least one Me group ingesting the beverage.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1036832 CAPLUS

DOCUMENT NUMBER: 144:349712

TITLE: Beautification action of N-acetylglucosamine and application for cosmeceutical foods

AUTHOR(S): Ishiwada, Tomoko

CORPORATE SOURCE: Yaizu Suisankagaku Industry Co., Ltd., Japan

SOURCE: Food Style 21 (2005), 9(9), 40-42

CODEN: FSTYFF; ISSN: 1343-9502

PUBLISHER: Shokuhin Kagaku Shinbunsha

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review discussing skin-beautifying effects of N-acetylglucosamine, especially hyaluronic acid production-enhancing effect and skin-moisturizing effect, and its application in cosmetic food, e.g. beverages, is provided.

L20 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:732745 CAPLUS

DOCUMENT NUMBER: 143:188842

TITLE: Subunits of neoculin, a taste-modifying protein occurring in the fruit of Curculigo latifolia

INVENTOR(S): Abe, Keiko; Asakura, Tomiko; Sorimachi, Hiroyuki; Uenoyama, Tazuko; Nakajima, Kenichiro; Kitamoto, Katsuhiko; Maruyama, Junichi; Kishi, Mikiya

PATENT ASSIGNEE(S): Mitsukan Group Corporation, Japan

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|---------------|--|----------|-----------------|----------|
| WO 2005073372 | A1   | 20050811 | WO 2005-JP1068  | 20050127 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |
| EP 1724341    | A1   | 20061122 | EP 2005-704174  | 20050127 |
| R:            | DE, ES, FR, GB, IT   |          |                 |          |

PRIORITY APPLN. INFO.:

JP 2004-19251 A 20040128

WO 2005-JP1068 W 20050127

AB The present invention provides a substance having an improved function of modifying the taste sensation, encoding sequences, and a taste sensation-modifying composition containing the above taste sensation-modifying substance. Namely, a heterodimeric protein neoculin comprising the subunits neoculin acidic subunit (NAS) and neoculin basic subunit (NBS)

and having an activity of modifying the taste sensation is provided. A unique taste-modifying activity that converts the sense of sourness to the sense of sweetness occurs in the fruit of the plant *Curculigo latifolia*, intrinsic to West Malaysia. The active component, known as curculin, is a protein consisting of two identical subunits. The authors have found a new taste-modifying protein, named neoculin, of the same origin. Both chemical anal. and cDNA cloning characterized neoculin as a heterodimeric protein consisting of an acidic, glycosylated subunit of 113 amino acid residues and a basic subunit that is the monomeric curculin itself. Vegetable juice, grapefruit juice, and Sushi ingredient condiment containing neoculin were prepared and demonstrated neoculin's effect on taste enhancement, in particular, suppression of bitterness and sourness, and enhancement of sweetness.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:458291 CAPLUS  
DOCUMENT NUMBER: 144:83743  
TITLE: Isolation and characterization of *Lactobacillus* strains involved in koumiss fermentation  
AUTHOR(S): Danova, Svetla; Petrov, Kaloyan; Pavlov, Plamen; Petrova, Penka  
CORPORATE SOURCE: Institutes of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulg.  
SOURCE: International Journal of Dairy Technology (2005), 58(2), 100-105  
CODEN: IJDTFQ; ISSN: 1364-727X  
PUBLISHER: Blackwell Publishing Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Koumiss is a slightly alc. fermented milk beverage, originally obtained by natural mix starters (lactic acid bacteria and yeast). Seven *Lactobacillus* strains from lyophilized koumiss were isolated and identified as *L. salivarius*, *L. buchneri* and *L. plantarum*. The process of lactic acid fermentation caused by koumiss strains was faster (9-13 h) than that with other lactobacilli. The conversion ratio of glucose to lactic acid ranged from 47% to 79% and was strain dependent. All strains were resistant to low pH. Three of the strains isolated were viable during prolonged cold storage in fermented milk (3 wk at 4°C).

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:409335 CAPLUS  
DOCUMENT NUMBER: 142:451846  
TITLE: Composition to enhance joint function and repair  
INVENTOR(S): Nelson, Michael  
PATENT ASSIGNEE(S): Motion Potion, Inc., USA  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|---------------|---|----------|-----------------|----------|
| WO 2005041999 | A1  | 20050512 | WO 2004-US34945 | 20041020 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, |          |                 |          |



NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG

US 2005113287 A1 20050526 US 2004-970786 20041020

PRIORITY APPLN. INFO.: US 2003-513379P P 20031021

AB The present invention relates to a composition to enhance joint function, reduce inflammation and homocysteine levels, and repair cartilage. The present invention relates to a nutritional supplement comprising a glucosamine-containing constituent, a chondroitin-containing constituent, methylsulfonylmethane, and at least one sulfur-containing amino acid. A preferred sulfur-containing amino acid is taurine. The nutritional supplement can also include folic acid, vitamins B6, B12, C. The nutritional supplement can also include chromium and lipoic acid to improve insulin receptor sensitivity.

REFERENCE COUNT: 3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:573619 CAPLUS  
DOCUMENT NUMBER: 133:168334  
TITLE: Proteoglycan-reduced soft tissue xenografts  
INVENTOR(S): Stone, Kevin R.  
PATENT ASSIGNEE(S): Crosscart, Inc., USA  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2000047131   | A1   | 20000817 | WO 2000-US3233  | 20000208   |
| W: AU, CA, JP<br>RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |            |
| US 6267786  | B1   | 20010731 | US 1999-248336  | 19990211   |
| CA 2361579  | A1   | 20000817 | CA 2000-2361579 | 20000208   |
| EP 1158930  | A1   | 20011205 | EP 2000-908532  | 20000208   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI                   |      |          |                 |            |
| JP 2002536109   | T    | 20021029 | JP 2000-598085  | 20000208   |
| AU 760424   | B2   | 20030515 | AU 2000-29857   | 20000208   |
| US 2001039459   | A1   | 20011108 | US 2001-873975  | 20010604   |
| PRIORITY APPLN. INFO.:  |      |          | US 1999-248336  | A 19990211 |
|   |      |          | WO 2000-US3233  | W 20000208 |

AB The invention provides an article of manufacture comprising a substantially non-immunogenic soft tissue xenograft for implantation into humans. The invention further provides methods for preparing a soft tissue xenograft by removing at least a portion of a soft tissue from a non-human animal to provide a xenograft; washing the xenograft in saline and alc.; subjecting the xenograft to cellular disruption treatment; and digesting the xenograft with a proteoglycan-depleting factor and/or glycosidase and optionally following with a capping treatment. The invention also provides an article of manufacture produced by the above-identified method of the invention. The invention further provides a soft tissue xenograft for implantation into a human including a portion of a soft tissue from a non-human animal, wherein the portion has extracellular components and substantially only dead cells. The extracellular components have reduced proteoglycan mols. Each of the xenografts of the invention are substantially non-immunogenic and have substantially the same mech. properties as a corresponding native soft tissue.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:110777 CAPLUS  
DOCUMENT NUMBER: 132:321397  
TITLE: Effect of oral administration of Cellulomonas flavigena NTOU 1-degraded chitin hydrolysate on physiological changes in rats  
AUTHOR(S): Chen, Shwu-Hwa; Chen, Hsing-Chen  
CORPORATE SOURCE: Department of Food Science, National Taiwan Ocean University, Chi-lung, 202, Taiwan  
SOURCE: Food Science and Agricultural Chemistry (1999), 1(3), 186-193  
CODEN: FSACFO; ISSN: 1560-4152  
PUBLISHER: Chinese Agricultural Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB This research was conducted to determine the physiol. changes of rats fed *Cellulomonas flavigena* NTOU 1-degraded chitin hydrolyzate. Chitin was prepared from shrimp shell which was decalcified using HCl and then deproteinized by *Pseudomonas maltophilia* 1-1. The chitin was subsequently hydrolyzed by *C. flavigena* NTOU 1 and then sterilized to be a chitin hydrolyzate. In the hydrolyzate, some substances were detected, such as N-acetylchitobiose (39 mg/100 mL), 2 unknown oligosaccharides (122 and 106 mg/100 mL), and trace amts. (<7 mg/100 mL) of amino acids, nucleotides, and associated compds. To evaluate the effect of chitin hydrolyzate on the physiol. consequences in rats, 2 trials of animal (Sprague Dawley rats) tests were conducted. In the treatment, rats were fed Purina Chow and chitin hydrolyzate; while in the control, distilled water was used instead of the hydrolyzate. Each test was carried out for 4 wk. At the termination, the concentration of blood plasma total cholesterol in the treated animals was lower than that in the control. While the count of white blood cells in the treated animals was higher than that in the control, the log counts of total anaerobic bacteria in ceca of the 2 groups of animals did not differ. The counts of *Bifidobacterium* between the 2 groups also did not differ. However, *Bacteroides fragilis* was more predominant (30%) in the treated animals. Therefore, one should be careful in recommending ingestion of chitohydrolyzate as a health food on clin. grounds.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:64729 CAPLUS

DOCUMENT NUMBER: 128:178814

TITLE: Heterogeneity of the zona pellucida carbohydrate distribution in human oocytes failing to fertilize in vitro

AUTHOR(S): Talevi, R.; Gualtieri, R.; Tartaglione, G.; Fortunato, A.

CORPORATE SOURCE: Dipartimento di Biologia Evolutiva e Comparata, Universita di Napoli "Federico II", Naples, 80134, Italy

SOURCE: Human Reproduction (1997), 12(12), 2773-2780

CODEN: HUREEE; ISSN: 0268-1161

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The mammalian zona pellucida contains several glycoproteins whose oligosaccharide moieties are known to play a key role in the interaction with spermatozoa. Since zona pellucida defects may represent one of the most likely causes of failed fertilization in human in-vitro reproduction, we have studied the carbohydrate composition and distribution over the human zona pellucida by means of lectins. Donated, not inseminated cumulus-oocyte complexes, from cohorts with high fertilization rates, and fertilization-failed oocytes from cohorts inseminated with proven fertile donor semen, were analyzed using 11 fluorescein-labeled lectins, on deplasticized semi-thin epoxy sections. Results showed that wheat germ agglutinin (WGA), *Maclura pomifera* (MPA) and *Pisum sativum* (PSA) bound to the extracellular matrix bordering the zona pellucida-corona radiata interface of cumulus-oocytes complexes, while the zona pellucida was labeled by WGA, Con A (ConA) and PSA. WGA labeling and correlative electron microscopy on the cumulus-oocyte complexes demonstrated that this lectin is a useful tool to trace the cortical granule distribution in the human oocyte. Surprisingly, in the failed-fertilized oocytes the zona pellucida was also labeled by MPA and showed three different patterns: (i) labeling of the zona pellucida outer surface; (ii) uniform labeling; (iii) labeling of an outer zona pellucida layer with variable thickness. Comparative anal. of WGA and MPA labeling on single failed-fertilized oocytes demonstrated that MPA zona pellucida patterns are not related to the cortical reaction. The nature and meaning of the MPA pattern of

failed-fertilized oocytes were discussed in the light of zona pellucida defects impairing sperm receptivity.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:527758 CAPLUS

DOCUMENT NUMBER: 127:187869

TITLE: Composition for tissues to sustain viability and biological functions in surgery and storage

INVENTOR(S): Chen, Chung-ho; Chen, Sumi C.

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 5,298,487.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 5654266             | A    | 19970805 | US 1994-218109  | 19940328    |
| US 5298487             | A    | 19940329 | US 1992-833027  | 19920210    |
| PRIORITY APPLN. INFO.: |      |          | US 1992-833027  | A2 19920210 |
|                        |      |          | US 1989-346700  | A3 19890503 |

AB A composition composing ketone bodies and/or precursors thereof and an aqueous phosphate-buffered balanced salt solution with citrate, HPO<sub>4</sub><sup>2-</sup>, and Ca<sup>2+</sup> in a defined concentration ratio is useful as a rich energy source for isolated tissue

and for peripheral tissues under surgery with concurrent suppression of lactic acid formation and accumulation in the cells. Methods, including a mechanism and an associated set of protocols, are provided for making the solution without causing autoclave-elicited caramelization and precipitation in the

manufacturing process. The composition may be used in ocular surgery, general surgery, and topical application, storage, and rinsing of donor tissues prior to transplantation. Thus, an irrigating solution contained Na DL- $\beta$ -hydroxybutyrate 1.51, KCl 0.75, NaCl 7.71, Na<sub>2</sub>HPO<sub>4</sub>·7H<sub>2</sub>O 0.67, NaH<sub>2</sub>PO<sub>4</sub>·H<sub>2</sub>O 0.07, Na citrate·2H<sub>2</sub>O 0.59, MgCl<sub>2</sub>·6H<sub>2</sub>O 0.24, and CaCl<sub>2</sub> 0.09 mg/mL (pH 7.3-7.4). The solution was filtered, bottled, sealed under vacuum, and sterilized by autoclaving or by showers of superheated water at 121-123° for 15-20 min and immediately cooled rapidly with showers of water or in water baths in 2 stages, first at 60° and then at 4°, to prevent breakage of glass bottles. Glucose (5.5 mM) may be added to the solution without eliciting autoclave-induced caramelization.

L28 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:128651 CAPLUS

DOCUMENT NUMBER: 124:173976

TITLE: Monosaccharides and myo-Inositol in Commercial Milks

AUTHOR(S): Troyano, Esperanza; Villamiel, Mar; Olano, Agustin; Sanz, Jesus; Martinez-Castro, Isabel

CORPORATE SOURCE: Instituto de Fermentaciones Industriales, Madrid, 28006, Spain

SOURCE: Journal of Agricultural and Food Chemistry (1996), 44(3), 815-17

CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monosaccharides (galactose, glucose, tagatose, 3-deoxypentulose, N-acetylglucosamine, and N-acetylgalactosamine) and myo-inositol were determined by gas chromatog. in different types of market milk (pasteurized,

dried, UHT, and in-container sterilized). Glucose, myo-inositol, and N-acetylhexosamine concns. were similar to those previously found in raw milk and showed no variations due to sample type. Sterilized milk samples were characterized by the presence of tagatose and 3-deoxypentulose and, thus, could be clearly distinguished from UHT samples. The galactose level, which was found to be higher in the samples submitted to stronger thermal treatment, seems to be also a useful indicator for milk classification.

L28 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:229569 CAPLUS

DOCUMENT NUMBER: 110:229569

TITLE: Lectin receptors on the surface of ejaculated spermatozoa of fertile and sterile humans

AUTHOR(S): Xia, Xingzhong; Sun, Ce; Shen, Zhaowen

CORPORATE SOURCE: Shanghai Inst. Biochem., Acad. Sin., Shanghai, Peop. Rep. China

SOURCE: Shengwu Huaxue Yu Shengwu Wuli Xuebao (1988), 20(6), 599-606

CODEN: SHWPAU; ISSN: 0582-9879

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Lectin receptors on the surface of human ejaculated spermatozoa were studied with immuno-enzymic techniques. Pea lectin (PSL), Con A and peanut agglutinin (PNA) predominantly bind to the acrosomal cap region of the plasma membrane of human spermatozoa. Wheat germ agglutinin (WGA) strongly reacts with carbohydrates of the postacrosomal region and middle piece membrane, whereas rice germ lectin (RGL) binds weakly to the same domains. Sialic acid and N-acetylglucosamine are known as hapten inhibitors of WGA, while RGL specifically reacts only with N-acetylglucosamine residues of glycoconjugates. Enzyme-labeled Ricinus communis agglutinin (RCA) stains the entire sperm surface. Receptors for soybean agglutinin (SBA) are present in the midregion of the sperm head. The lectin binding patterns in sterile spermatozoa are different from those of normal persons. These infertile spermatozoa have obviously lost their binding sites for PSL, Con A, and PNA in the anterior region of sperm heads and are also no longer stained by RCA in the this region, indicating a decrease of saccharides and a change in structure in the acrosomal region of sterile spermatozoa. The distribution of WGA receptors in sterile spermatozoa is similar to that in fertile spermatozoa, but shows a slight decline in WGA receptor d. No essential differences in binding pattern for RGL and SBA were observed between fertile and sterile spermatozoa, suggesting that the N-acetylglucosamine and N-acetylgalactosamine residues on human spermatozoa are possibly not relevant to the binding function in sperm-egg interaction in humans.

L28 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:48270 CAPLUS

DOCUMENT NUMBER: 100:48270

TITLE: Chitinase is an inducible enzyme in Beauveria bassiana

AUTHOR(S): Smith, Rebecca J.; Grula, E. A.

CORPORATE SOURCE: Dep. Microbiol., Oklahoma State Univ., Stillwater, OK, 74078, USA

SOURCE: Journal of Invertebrate Pathology (1983), 42(3), 319-26

CODEN: JIVPAZ; ISSN: 0022-2011

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The sterilization of chitin by autoclaving or boiling causes the release of D-glucosamine and N-acetylglucosamine from the macromol. and these solubilized components actually function as the inducers for synthesis of chitinase in B. bassiana. The insol. macromol. is not an inducer of chitinase since sterilization by dry heat or CHCl<sub>3</sub> will not bring about release of the amino sugars or induction of the

enzyme. Free glucosamine, N-acetylglucosamine, and chitobiose are all good inducers of chitinase. The most sustained synthesis of the enzyme occurs in an autoclaved chitin-salts medium.

L28 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1971:115883 CAPLUS  
DOCUMENT NUMBER: 74:115883  
TITLE: N-Acyl derivatives of aminoglucose for treating degenerative articular disorders  
PATENT ASSIGNEE(S): Rotta Research Laboratorium  
SOURCE: Fr. Demande, 9 pp.  
CODEN: FRXXBL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| FR 2016182             | A5   | 19700508 | FR 1969-28696   | 19690821   |
| FR 2016182             | B1   | 19730112 |                 |            |
| DE 1792346             | A    | 19711111 | DE 1967-1792346 | 19680822   |
| DE 1792346             | B2   | 19800228 |                 |            |
| DE 1792346             | C3   | 19801023 |                 |            |
| US 3697652             | A    | 19721010 | US 1969-851446  | 19690819   |
| PRIORITY APPLN. INFO.: |      |          | DE 1967-1792346 | A 19680822 |

AB Oral, rectal, or parenteral administration of 200-500 mg doses of N-acetylglucosamine, with or without 0.2-4 equivalent of NaI or Na<sub>2</sub>SO<sub>4</sub>, in pharmaceutically acceptable compns. such as tablets, lozenges, capsules, suppositories, syrups, or aqueous solns. gave favorable, lasting results, with low toxicity. Aqueous solns. are preferred, since they can be stabilized by heat sterilization. Examples (9) of formulations for each type of composition are given.

L28 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1958:114605 CAPLUS  
DOCUMENT NUMBER: 52:114605  
ORIGINAL REFERENCE NO.: 52:20383e-g  
TITLE: Development of lysozyme-resistance in Micrococcus lysodeikticus and its association with an increased O-acetyl content of the cell wall  
AUTHOR(S): Brumfitt, W.; Wardlaw, A. C.  
CORPORATE SOURCE: Wright-Fleming Inst., London  
SOURCE: Nature (London, United Kingdom) (1958), 181, 1783-4  
CODEN: NATUAS; ISSN: 0028-0836  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB The lysozyme sensitivity of M. lysodeikticus cell walls was artificially altered by changing their O-acetyl content by the use of chemical procedures. Resistant cell walls were made sensitive by removing O-acetyl groups with NaOH, and, conversely, the cell walls were rendered resistant by acetylation with Ac<sub>2</sub>O and pyridine. Cells incubated in buffers over the pH range 7-11.4 resulted in progressive decrease of O-acetyl content and increasing lysozyme sensitivity with increasing pH. These chemically induced changes are not transmitted as they are in natural selection. The hypothesis is proposed that lysozyme splits a 1-4 link between N-acetylmuramic acid and N-acetylglucosamine.